DOCUMENT RESUME

ED 278 507 PS 016 335

TITLE Second Grade Class Size Reduction Program Classroom Implementation, 1985-86. OEA Evaluation Report.
INSTITUTION New York City Board of Education, Brooklyn. Office of Educational Assessment.
PUB DATE Sep 86
NOTE 22p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Class Size; Grade 2; *Instruction; Primary Education; Program Evaluation; *Staff Development; Surveys; *Teaching Experience; *Urban Schools
IDENTIFIERS *New York (New York)

ABSTRACT

The Office of Educational Assessment of the New York City public schools conducted an evaluation of an initiative aiming to reduce the average size of second-grade classes from 29 to 25 students. Information about class size was provided by the Office of the Auditor General. In addition, field staff observed classes and interviewed teachers in a randomly selected sample of 133 second-grade classrooms. This report provides information on class size, teacher experience, instructional program, and staff development activities. Among the findings was that the average second-grade classroom was reduced in size to 25 students, according to program guidelines. It was recommended that staff development for teachers should include strategies for reducing the instances of activities which involve no productive learning for students (such as waiting, classroom management, etc.), and should include techniques for working with students for whom English is a second language. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED278507

O.E.A. Evaluation Section
Robert Tobias, Administrator
Prudence Opperman, Senior Manager

September, 1986

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

1985-86

SECOND GRADE CLASS SIZE REDUCTION PROGRAM CLASSROOM IMPLEMENTATION

Prepared by:
Early Childhood Evaluation Unit

Carolyn Jarvis,
Manager

Richard D. Gampert,
Evaluation Consultant

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard Guttenberg

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

New York City Public Schools
Office of Educational Assessment
Richard Guttenberg, Director

PS 016335

BEST COPY AVAILABLE

A SUMMARY OF THE REPORT

FOCUS OF THE REPORT

For the 1985-86 school year, state aid was provided to the New York City public schools to reduce the average size of second-grade classes from 29 to 25 students. As part of this effort the Early Childhood Unit of the Division of Curriculum and Instruction developed a manual, Teaching Grade Two, and organized several city-wide training events for district representatives responsible for training early childhood teachers.

The Office of Educational Assessment (O.E.A.) conducted an evaluation of the reduced class size initiative which focused on program implementation. Information about class size was provided by the Office of the Auditor General. O.E.A. field staff observed classes and interviewed teachers in a randomly selected sample of 133 second-grade classrooms. This report provides information on class size, experience, instructional program, and staff development activities.

FINDINGS

- The average second-grade class-size was reduced to 25 according to program guidelines.
- Teachers in a randomly selected city-wide sample were relatively experienced. Over 75 percent had five years or more of overall teaching experience and almost 50 percent had taught second grade for three years or more.
- The majority (80 percent) of the teachers reported they attended the three district training sessions. When asked to rate the training 64.7 percent said they found them somewhat useful or very useful.
- Over 80 percent of the teachers reported they had read and were familiar with the second-grade manual, Teaching Grade Two.
- Students were observed to be engaged in activities which involved no productive learning (i.e., waiting, classroom management, etc.) slightly more frequently than they were seen involved in instructional and experiential activities planned to promote learning.
- Although a variety of materials were observed in the classrooms, 41 percent of the teachers said they were not satisfied with the materials and supplies they had received. Classes for gifted students seemed to have a greater variety of materials particularly in the areas of science, mathematics, and arts and crafts.

- In over 80 percent of the monolingual classes the primary language of almost half (44 percent) of the students was a language other than English. Further, between three and four students in these classes, on average, were limited English proficient.

- Instances of small group and individual instruction were observed as often as instruction with large groups and the total class. Teachers in classes for the gifted worked with small groups and individual students more frequently than other teachers.

RECOMMENDATIONS

- Staff development for teachers should include strategies for reducing the instances of activities which involve no productive learning for students.

- Staff development for teachers should include techniques for working with students for whom English is a second language.

I. INTRODUCTION

PROGRAM DESCRIPTION

In the 1985-86 school year, first time funding was provided through state aid to reduce the average second-grade class size from 29 to 25 students in all public elementary schools in New York City. Each community school district was required to reduce second-grade classes to an average of 25 pupils with no class having more than 28 students. When classroom space did not permit the class size to be reduced, schools were permitted to reduce the adult/student ratio by assigning a half-time paraprofessional or additional part-time teacher for classes of 29 to 35. Classes of 36 or more students were to be assigned an additional full-time teacher.

In support of this effort, the Early Childhood Unit of the Division of Curriculum and Instruction developed a new manual, Teaching Grade Two, which was distributed to all second-grade teachers. The unit also organized several citywide training events for district representatives responsible for training early childhood teachers. Second-grade teachers attended three mandated half-day training sessions held in September, December, and March in their districts.

THE EVALUATION STUDY

The Office of Educational Assessment (O.E.A.) carried out an evaluation of the reduced class size initiative. The evaluation

focused on program implementation and addressed the following questions:

-- What were the backgrounds and levels of experience of second-grade teachers?

-- What were the characteristics of the instructional program with respect to classroom arrangement, scheduling of activities, instructional materials, instructional methodology,and grouping for instruction?

-- Did the instructional program differ in classes of different sizes and/or types (i.e., gifted, bilingual, or bridge)?

The following questions related to staff development were also addressed:

-- How did second-grade teachers assess the mandated district staff development activities?

-- What other on-going training or assistance was provided to teachers?

II. METHODOLOGY

EARLY GRADE CLASS-SIZE AUDIT

The Office of the Auditor General conducted a class size audit of all kindergarten, first-, and second-grade classes in all elementary schools in early October, 1985. In addition to class size, the audit also provided information about classroom staffing and the type of educational program. These data were made available to O.E.A. for use in preparing this report.

CLASSROOM IMPLEMENTATION

To assess classroom implementation, O.E.A. randomly selected a sample of 37 elementary schools and then, within each school randomly selected a sample of classes for site visits. Field staff, trained by O.E.A., used a standard observation checklist to collect information about classroom activities, grouping for instruction, instructional methodology, and adult-student interactions. During the site visits, the field staff also interviewed the teachers of the sampled classes. The site visits took place between February and June, 1986. In total, 133 observations and interviews were conducted.

Since the program was instituted city-wide, no comparison group data were available for the 1985-86 cohort. In addition, no comparable observation data were available for second grade classes in 1984-85. Therefore, this report serves as a description of program implementation at the classroom level.

III. FINDINGS

CLASS SIZE AND ADULT/STUDENT RATIO

According to the class size audit, as of November, 1985, there were 68,418 students enrolled in 2,643 second-grade classes. Additional second-grade students attended 64 first/second grade bridge classes and 55 second/third grade bridge classes. As proposed, the average citywide class size was 25.

The majority of classes (2,290) were staffed by one teacher and had an average class size of 25 while 399 classes with an average class size of 31 were assigned either a part-time para-professional or teacher. As of November, there were only 73 classes which still had more than the permissible number of students.

CLASS TYPES

Bilingual Classes

According to the audit there were 282 bilingual classes. Of these, 26 were bilingual first/second grade bridge classes and 22 were bilingual second/third grade bridge classes. The average class size was also 25 for bilingual classes. Bilingual classes comprised 10 percent of all second grade classes.

Most bilingual classes (80 percent) were taught by one teacher and had an average class size of 24. Proportionately more bilingual classes (26.6 percent) than monolingual classes

were staffed by a teacher plus a paraprofessional or part-time teacher. Average class size was 31 in these classes. Few bilingual classes (nine) had more than the permitted number of students.

Bridge Classes

Bridge classes are classes which enroll children assigned to different but contiguous grades. (They are sometimes called mixed grade or ungraded classes.) Some schools form bridge classes because they believe they provide an optimal learning environment for young children, while in other schools they are created when there are not enough students enrolled in either of two grades to create a whole class. Bridge classes comprised only 4.3 percent of the total number of second-grade classes. Since less than five percent of the total number of classes in the 1985-86 second grade were bridge classes, they were not treated as a separate class type in subsequent analyses.

Teacher Experience and Staff Development

The second grade teachers were a relatively experienced group. Over 75 percent of the interviewed teachers had five years or more of teaching experience. Only nine percent said they had one year or less of teaching experience. Almost 50 percent had taught second grade for three or more years. When asked about their licenses, 79 percent said they held either an early childhood, a common branches, or both licenses; 18 percent held Temporary Per Diem licenses; and three percent had a

bilingual, common branches license.

Since the staff development training sessions were a part of the program, the teachers were asked about their participation. Attendance at each of the training sessions was in excess of 80 percent. When asked to rate the district training sessions, 64.7 percent of the teachers rated the sessions as being either somewhat useful or very useful. However, only 27 percent rated the September preservice training as very useful; 37.7 percent rated the December half-day training as very useful; and 47.7 percent percent rated the March training as very useful.

Slightly more than 50 percent of the teachers said they participated in other staff development activities. Forty percent of the teachers reported they received hands-on, in-classroom training or assistance, primarily from district office personnel (19 percent) and school personnel and teachers (17 percent).

As part of the staff development, teachers were provided with the manual, Teaching Grade Two. Subsequently, 82 percent of the teachers interviewed said they had read and were familiar with the manual. Further, over 75 percent said they found the manual either somewhat helpful or very helpful in working with their classes.

Two educational strategies emphasized in staff development and the manual were the use of learning centers and the thematic approach. Learning centers are classroom areas where children work on self-selected activities independent of direct teacher

supervision. The thematic approach is a method for integrating instruction across different subject areas. Table 1 presents teachers' reported use of the thematic approach along with observations of use of this approach in their classrooms. While slightly more than 60 percent of the teachers said they used this approach, its use was observed in less than 25 percent of the classes.

Table 1

Observation and Use of the Thematic Approach
in Second-Grade Classes, 1985-86
(N=133)

	Observed Use of the Thematic Approach		
Reported Use Of The Thematic Approach	No	Yes	Total
No	38%	1%	39%
Yes	38	24	61
Total	75	25	100

-- Although almost 40 percent of the teachers said they used a thematic approach, this approach was observed in less than 25 percent of the classes.

Based on the above results, the thematic approach was not being used in many classrooms even though teachers say they used it and despite the fact that almost 100 percent of the teachers reported that they found the method either somewhat effective or very effective.

Learning centers were divided into two categories: experiential (in which the focus is not usually specific to the acquisition of a particular academic skill) and instructional (in which acquisition of an academic skill is the primary focus). While 53.4 percent of the observed classrooms had no experiential learning center, over 85 percent of the observed classrooms contained at least one instructional learning center. However, only library or mathematics instructional learning centers were observed in a majority of the classrooms (79 percent and 56 percent, respectively).

Description of the Classrooms

Class Size, Adult/Student Ratio, and Class Type

Of the 133 classes which were visited, 5.3 percent were bilingual and six percent were classes for gifted students. Because of these small numbers (and the attendent unreliabilty of results derived from them), O.E.A. staff decided to analyze the data as a total group, although results for class types, based on staffing, are also included.

The average class size in the sample was 25 (S.D.=3.4), with the range of class size from 15 to 36. Slightly more than 31 percent of the classes had a paraprofessional to assist the classroom teacher for some part of the day. Based on observations by O.E.A. field staff, 15 percent of the classes were observed to have a half-time paraprofessional.

Only 5.3 percent of all of the second-grade classes were

bilingual. However, teachers in 82.5 percent of the monolingual classes reported that almost half (44.7 percent) of the children in their classes spoke languages other than English at home. Most of these students were Spanish-speaking. Teachers in these classes also reported that an average of three students were limited English proficient.

Instructional Materials

Each classroom contained a variety of instructional materials. Table 2 presents the instructional materials observed for each class type. As indicated in Table 2, all classes, regardless of type, contained textbooks, workbooks, storybooks, etc. However, the gifted classes appeared to have more materials than either the regular or bilingual classes, particularly in the areas of science, arts and crafts, writing materials, and math manipulatives.

A slight majority (59 percent) of the teachers said that they were either somewhat satisfied or satisfied with the classroom supplies and materials. Of the teachers who said they were not satisfied with the materials they received, the majority (65.4 percent) said they had not received sufficient supplies or materials.

Classroom Activities

Each of the 133 classrooms in the sample was observed by O.E.A. field staff who recorded activities, teacher-pupil interactions, and instructional groupings. Field staff made their

Table 2
Percent of Second Grade Classes
With Various Types of Instructional Materials

Instructional Material	Class Type: Regular (N=118)	Class Type: Bilingual (N=7)	Class Type: Gifted (N=8)	All Classes (N=133)
Language Games	60.2%	71.4%	87.5%	62.4%
Math Manipulatives	72.9	57.1	87.5	72.9
Children's Texts, Workbooks, etc.	100.0	100.0	100.0	100.0
Storybooks, Magazines	97.5	87.5	100.0	97.0
Writing Materials	68.6	57.1	75.0	68.4
Pet(s)	9.3	14.3	25.0	10.5
Nature/Science Materials	66.1	57.1	87.5	66.9
Calendar/Weather Charts	90.7	85.7	87.5	90.2
Alphabet Charts	95.8	85.7	87.5	94.7
Experience Chart(s)	33.1	14.3	37.5	32.3
Other Instructional Chart(s)	92.4	85.7	100.0	92.5
Arts & Crafts Materials	63.6	85.7	100.0	66.9
Typewriter	5.1	0.0	12.5	5.3
Computer	5.9	14.3	25.0	7.5

-- Virtually all classes had workbooks, textbooks, and storybooks or magazines.
-- Gifted classes had a wider variety of materials than other classes.

observations every 15 minutes over a period of four hours, producing 16 observations per class. O.E.A. staff analyzed the results which produced information on the number of occurrences of each activity in the class.

Based on reviews of the relevant literature, previous experience, and educational meaningfulness, the 26 activities on the record were grouped into three broad activity types: Experiential activities (those activities not specifically directed toward the acquisition of a particular academic skill); instructional activities (which are directed toward the acquisition of a specific academic skill); and non-learning activities (which involved no productive learning, such as off-task interactions or waiting). Using these categories, the results were analyzed for all classes by class type and staffing.

Table 3 presents the results, by class type, for each of the three activity categories. For all classes the largest percentage of activities are non-learning (56.4 percent). Regardless of class type, non-learning activities accounted for over half of the activities observed.

Grouping for Instruction

One of the goals of the class-size reduction to 25 is to permit teachers to use small-group instruction more frequently and to provide an opportunity for teachers to give students more individualized instruction. Over 92 percent of the teachers said they used small-group instruction in their classrooms and 84

Table 3

Percent of Occurrences of Classroom Activities by Class Type,
Second-Grade Classes 1985-86

Activity Types	Class Types					
	One Teacher (N=92)	Teacher Plus Paraprofessional (N=25)	Bilingual Class One teacher (N=5)	Bilingual Class Teacher plus Para. (N=3)	Gifted Class (All types) (N=8)	Total Sample (All Classes) (N=133)
Experiential Activities	6.7	3.9	3.0	11.2	8.3	6.2
Instructional Activities	38.4	33.8	33.2	36.4	40.3	37.4
Non-Learning Activities*	54.9	62.3	63.8	52.4	51.4	56.4

*Non-Learning Activities includes all activities not categorized under either Experiential or Instructional Activities.

-- Over half of all observed classroom activities were non-learning.

percent said they found the method very effective. As the results presented in Table 4 indicate, small-group or individualized instruction was observed as frequently as large-group and whole-group instruction across all class types. However, in the monolingual classes which had paraprofessionals, instructional activities were more frequently conducted in large rather than small groups (37.2 percent and 23.5 percent, respectively). These differences in instructional groupings were not observed in bilingual classes with a paraprofessional. In the gifted classes students were observed more frequently engaged in individual or small-group instructional activities (33.3 percent and 27.2 percent) than students in regular or bilingual classes.

Table 4

Percent of Instructional Groupings by Class Type,
Second-Grade Classes 1985-86

Instructional Grouping	Class Types					
	One Teacher (N=92)	Teacher Plus Paraprofessional (N=25)	Bilingual Class One teacher (N=5)	Bilingual Class Teacher plus Para. (N=3)	Gifted Class (All types) (N=8)	Total Sample (All Classes) (N=133)
Total Group	28.0	18.3	30.0	23.1	16.0	25.3
Individual Children	23.5	21.0	10.0	26.9	33.3	23.4
Small Groups	25.9	23.5	26.7	26.9	27.2	25.6
Large Groups	22.6	37.2	33.3	23.1	23.5	25.7

-- Instructional groupings were observed with approximately equal frequency across class types.

IV. CONCLUSIONS AND RECOMMENDATIONS

First time funding was provided through state aid to reduce the average second-grade class size from 29 to 25 students in all public elementary schools in New York City in the 1985-86 school year. In support of this effort, the Early Childhood Unit of the Division of Curriclum and Instruction developed a new manual, Teaching Grade Two, which was distributed to all second-grade teachers. In addition, the Early Childhood Unit organized several citywide training events for district representatives responsible for training early childhood teachers. The second-grade teachers attended three mandated half-day training sessions in their districts during the school year.

As of November, 1985, there were 68,418 students enrolled in 2,643 second-grade classes. Additional second graders attended 64 first/second grade bridge classes or 55 second/third grade bridge classes. Based on these findings, the average class size in the second grade classes was reduced to 25 from a average of approximately 29 in 1984-85.

As a result of the class size reduction, it was expected that the teachers in the second-grade classes would not be experienced. However, this was not the case. The teachers in the second grade were relatively experienced with over 50 percent having taught second grade for three years or more.

Over 80 percent of the teachers attended the mandated staff development training sessions and almost 65 percent rated the

sessions as being either somewhat useful or very useful. However, less than half of the teachers rated the sessions as being very useful. In addition, over 80 percent of the teachers were familiar with the manual, Teaching Grade Two and 75 percent found the manual to be either somewhat helpful or very helpful in working with their classes.

All classrooms contained textbooks, workbooks, storybooks, etc., although the classes for gifted children contained a greater variety of materials, particulary in the areas of science, math manipulatives, arts and crafts, and writing materials. Related to this, over 40 percent of the teachers said they were not satisfied with the supplies and materials they received.

One of the primary goals of reducing the second-grade class size was to permit teachers to use more individualized and small-group instruction. A range of instructional groupings were observed in the classes, although the classes for gifted students used individual and small group instruction more frequently than the regular or bilingual classes. However, in all classes, regardless of type, over 50 percent of all observed activities involved no productive learning.

Finally, based on O.E.A. observations and teacher interviews, in over 82 percent of the monolingual classes the primary language of almost half (44 percent) of the students was a language other than English. Further, between 3 and 4 students in these classes, on average, were limited English proficient.

RECOMMENDATIONS

The following recommendations are made to improve future program implementaion.

-- Staff development for teachers should include strategies for reducing the instances of classroom activties which involve no productive learning for students.

-- Staff development for teachers should include working with students for whom English is a second language.